

CLAIMS

1. (Original) A semiconductor light-emitting element comprising:

a first Group III-V compound semiconductor;

5 a current confining layer, which is made of a second Group III-V compound semiconductor that has grown on a selected surface area of the first Group III-V compound semiconductor and which has a striped opening extending along the length of a resonant cavity; and

10 a third Group III-V compound semiconductor, which covers the surface of the first Group III-V compound semiconductor that is exposed through the striped opening and the surface of the current confining layer.

15 2. (Original) The semiconductor light-emitting element of claim 1, wherein the current confining layer has two overhanging portions that overhang toward the striped opening.

3. (Original) The semiconductor light-emitting element
20 of claim 2, wherein a gap is provided between each of the two

overhanging portions of the current confining layer and a part of the surface of the first Group III-V compound semiconductor.

5 4. (Original) The semiconductor light-emitting element of claim 3, wherein the gap has a height of at least 10 nm and a width of at least 0.1 μm .

10 5. (Currently Amended) The semiconductor light-emitting element of claim 1, wherein a portion of the third Group III-V compound semiconductor, which contacts with the surface of the first Group III-V compound semiconductor through the striped opening, has a width of 0.5 μm to 3 μm .

15 6. (Currently Amended) The semiconductor light-emitting element of claim 1, wherein the first Group III-V compound semiconductor has a multilayer structure including an active layer.

7. (Currently Amended) The semiconductor light-emitting element of claim 1, wherein the Group III-V compound semiconductors are gallium nitride based.

5 8. (Original) The semiconductor light-emitting element of claim 7, wherein the current confining layer includes a gallium nitride layer with aluminum, and

wherein the current confining layer has a thickness of 0.1 μm to 0.5 μm .

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9. (Currently Amended) The semiconductor light-emitting element of claim 1, wherein the electrical conductivity type of the second Group III-V compound semiconductor is opposite to that of the first Group III-V compound semiconductor.

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10. (Currently Amended) The semiconductor light-emitting element of claim 1, wherein the electrical conductivity type of the third Group III-V compound semiconductor is the same as that of the first Group III-V compound semiconductor.

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11. (Currently Amended) The semiconductor light-emitting element of claim 9, wherein the electrical conductivity type of the second Group III-V compound semiconductor is n-type.

5 12. (Original) A method for fabricating a semiconductor light-emitting element, the method comprising the steps of:

(A) providing a striped masking layer on a first Group III-V compound semiconductor;

(B) selectively growing a second Group III-V compound semiconductor over the entire surface of the first Group III-V compound semiconductor except a portion covered with the masking layer, thereby forming a current confining layer that has a striped opening defined by the masking layer;

(C) selectively removing the masking layer; and

15 (D) growing a third Group III-V compound semiconductor to cover the surface of the first Group III-V compound semiconductor, which is exposed through the striped opening, and the surface of the current confining layer.

13. (Original) The method of claim 12, wherein the step
(B) includes growing the second Group III-V compound
semiconductor laterally toward the center of the masking
layer, thereby defining two overhanging portions for the
5 current confining layer.

14. (Original) The method of claim 13, wherein the step
(C) includes removing parts of the masking layer, which are
located under the overhanging portions of the current
10 confining layer, thereby making the overhanging portions
overhang toward the center of the striped opening.

15. (Original) The method of claim 14, wherein the step
(D) includes providing gaps between the first Group III-V
15 compound semiconductor and the overhanging portions.

16. (Original) The method of claim 15, comprising the
steps of:

setting the width of the masking layer within the range
20 of 0.5 μm to 3 μm ; and

setting the width of a portion of the third Group III-V compound semiconductor, which contacts with the surface of the first Group III-V compound semiconductor through the striped opening, to the range of 0.5 μm to 3 μm .

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17. (Currently Amended) The method of claim 12, wherein the first Group III-V compound semiconductor has a multilayer structure including an active layer.

10 18. (Currently Amended) The method of claim 12, wherein the Group III-V compound semiconductors are gallium nitride based.

15 19. (Original) The method of claim 18, wherein the current confining layer includes a gallium nitride layer with aluminum, and has a thickness of 0.1 μm to 0.5 μm .